(M - Q() X)Microwave Frequency Counter/Analyzer







pendulum

Overview

The Pendulum CNT-90XL Pulsed RF Microwave Frequency Counter/Analyzer is an excellent tool for measurement, analysis and calibration of Microwave Frequency, Power, and Pulsed RF time parameters like pulse width and PRI. Whether in test systems, on the R&D bench, in the calibration lab or out in the field, the high-resolution and ultra-fast CNT-90XL is the state-of-the-art Microwave Counter/Analyzer.

The new pulsed RF option enables measurements of pulses down to 30 ns width, plus PRI/PRF, frequency in burst and power in burst making CNT-90XL ideal for radar test and calibration.



Applications and Features

- Pulsed, Chirped, and Doppler Radar testing and calibration
- Microwave link carrier calibration
- Satellite communication equipment testing
- RF and microwave instrumentation calibration
- RF components and modules, including YIG and VCO testing
- Medical RF equipment testing

Leading Performance



- High resolution is vital for R&D and production testing. CNT-90XL meets this requirement with 100 ps single shot (time) or 12 digits/s (frequency). Obtained values are displayed with up to 14 digits.
- For calibration purposes, the CNT-90XL offers very high accuracy through stable internal OCXO time base, plus high resolution.
- Both USB and GPIB interfaces are standard. With USB you won't need to invest in a GPIB interface card for your PC. The GPIB operates in either SCPI/GPIB or 53131 emulation mode, for plug-and-play replacement in existing ATE systems.
- Menu-oriented settings reduce the risk of mistakes. Valuable signal information, given in multi-parameter displays, removes the need for other instruments like DVM's and Scopes.

The multi-functional CNT-90XL also serves as a 400 MHz general purpose timer/counter, with unique ease-of-use with analysis capabilities to view variations in signal parameters both numerically and graphically.

The Fastest Microwave Counter

The CNT-90XL Microwave Counter/Analyzer sets a new industry standard for microwave frequency analysis and outperforms any microwave Pulse or CW counter on the market regarding resolution, speed and acquisition time. The CNT-90XL is the worlds fastest Microwave counter and offers a measurement speed up to 250,000 frequency samples/s, for advanced statistical analysis, and for analysis of frequency or power transients.

TimeView[®] Modulation Domain Analysis SW



The optional Modulation Domain SW TimeView® is the ultimate tool to view and analyze dynamic frequency changes in real-time, utilizing the high-resolution PC screen, marker read-outs and processing, FFT-calculation to find modulation frequencies, ADEV calculation of short-term stability and more.

Excellent Graphical Presentation



One of the great features of the CNT-90XL is the graphical display and the menu oriented settings. The non-expert can easily make correct settings without risking costly mistakes. The multi-parameter display shows auxiliary measurement values such as Power level in dBm in Frequency measurements.

Measurement values are presented both numerically and graphically. The graphical presentation of results (histograms, trends etc.) gives a much better understanding of the nature of signal jitter. It also provides you with a much better view of changes vs time, from long term trends like slow drift, to fast modulation and transients. Three statistical views of the same data set can be viewed: Numerical, Histogram and Modulation/Trend. It is very easy to capture and toggle between views of the same data.

When adjusting a frequency source to given limits, the Limit qualifying tool gives fast and accurate visual guidance. Tolerance limit markers are visually displayed and the actual frequency is graphically displayed inside or outside the limit markers. Passing the limits will cause an alarm indication.

The graphical display examples below show the frequency changes over time directly on-screen, for example Doppler frequency shift in speed radar sensors, fast power switching, FM or AM. Built-in statistical processing presents numerical stability data and also frequency distribution histograms on-screen for analysis of frequency stability or modulation.

Battery Option



The CNT-90XL has an optional battery pack with 90 Wh capacity, capable of mains-free operation for at least 4.5 hours. In stand-by mode the battery pack can keep an OCXO warm and running for over 24 hours. Battery operation of a frequency counter/analyzer is valuable in three different applications:

- Mains-free operation in the field
- Transportation of high-stability OCXO to maintain stability, which gives instant use at destination without any warm-up time
- Battery backup acting as a built in UPS (Uninterrupted Power Supply

Product Features and Benefits

- Pulsed RF measurements (optional) includes Pulse Width to 30 ns, PRI/PRF, Frequency in Burst, Power in Burst
- Fast high-resolution frequency or power measurements, for modulation, doppler shifts, or transient analysis
- Very short acquisition time of 25 ms (Auto) or zero (Manual)
- High sensitivity (-33 dBm)
- Statistical processing and graphical histogram, trend and modulation display
- Affordable microwave frequency counting